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Professional Preparation:

University of Richmond, *summa cum laude*	Chemistry	B.S., 1990
Harvard University	Chemistry	Ph.D., 1994
University of California at Santa Barbara	Materials Chemistry	1994 - 1996

Appointments:

Cell and Molecular Biology Program, University of Vermont	2008 –
Environmental Pathology Training Program, University of Vermont	2007 –
Visiting Associate Professor of Chemistry and Chemical Biology, Harvard University	2007
Professor of Chemistry, University of Vermont	2007 –
Director, Undergraduate Degree Program in Biochemistry, University of Vermont	2002 –
Associate Professor of Chemistry, University of Vermont	2002 – 2007
Materials Science Program, University of Vermont	1996 –
Assistant Professor, University of Vermont	1996 – 2002

Other Responsibilities:

Pathology faculty search committee, 2011; Transdisciplinary Working Group member, 2009-2010; Vice President for Research/Graduate Dean search committee, 2009; Co-Founder and Chief Scientific Officer, Apollo SRI, LLC, 2002 – present; NEASC Reaccreditation Committee Co-Chair, 2007 – present; Chemistry faculty search committees, 2005 – present; Geology Chair Reappointment committee, 2008; Ad Hoc Research Misconduct committee, 2008; International Advisory Board, Fifth International Meeting on Nanoporous Materials, Vancouver, BC, 2008; Executive Council, Graduate College, 2004 – 2007; Phi Beta Kappa (Alpha Chapter, University of Vermont), President, 2004 – 2007, Treasurer, 2007 –present.

Publications:

44. "Gd-Labeled Microparticles in MRI: In Vivo Imaging of Large Particles after Intraperitoneal Injection," J. L. Steinbacher, S. A. Lathrop, K. Cheng, J. M. Hillegass, R. A. Kauppinen, B. T. Mossman, and C. C. Landry, *Small* **2010**, *6*, 2678.

43. "Acid-Prepared Mesoporous Spheres (APMS) Increase Efficacy of Doxorubicin Transfer and Toxicity in Human Mesothelioma Cells," S. R. Blumen, K. Cheng, M. MacPherson, M. E. Ramos-Nino, T. A. James, D. J. Taatjes, C. C. Landry, and B. T. Mossman, *Int.J. Cancer.*, doi: 10.1002/ijc.25666.

42. "Targeted Uptake of Bifunctionally Modified Nanoporous Particles by Malignant Mesothelioma Cells," K. Cheng, S. R. Blumen, D. J. Weiss, T. A. James, B. T. Mossman, and C. C. Landry, *ACS Applied Mater. Interfaces* **2010**, *2*, 2489.

41. "Oxidation of a Mustard Gas Analogue Using an Aldehyde/O_2 System Catalyzed by V-Doped Mesoporous Silica," S. R. Livingston and C. C. Landry, *J. Am. Chem. Soc.* **2008**, *130*, 13214.

40. "Oxidation of 2-Chloroethylethylsulfide using V-APMS," S. R. Livingston and C. C. Landry, *J. Mol. Catal. A* **2008**, *283*, 52.

39. "Diffusion-Based Deprotection in Mesoporous Materials: Strategies for Differential Modification of Porous Silica Particles," K. Cheng and C. C. Landry, *J. Am. Chem. Soc.* **2007**, *129*, 9674.

38. "Effect of Surfactant on the Morphology of Ti-MMM-2 Mixed-Phase Materials," S. M. Solberg, D. Kumar, and C. C. Landry, *Stud. Surf. Sci. Catal.* **2007**, *165*, 543.

37. "Synthesis and Reactivity of Al-MMM-2: A New Microporous/Mesoporous Catalyst for the Alkylation of Toluene," S. M. Solberg and C. C. Landry, *J. Inorg. Organomet. Polym. Mater.* **2007**, *17*, 469.

36. "Unique Mechanisms of Uptake of Acid Prepared Mesoporous Spheres (APMS) by Lung Epithelial and Mesothelioma Cells," S. R. Blumen, K. Cheng, M. Ramos-Nino, D. Taatjes, D. Weiss, C. C. Landry, and B. T. Mossman, *Am. J. Resp. Cell Mol. Biol* **2007**, *36*, 333.

35. "Immobilization of a Mo,V-Polyoxometalate on Cationically Modified Mesoporous Silica: Synthesis and Characterization Studies," D. Kumar and C. C. Landry, *Microporous Mesoporous Mater.* **2007**, *98*, 309.

34. "Adsorption of DNA in Mesoporous Silica," S. M. Solberg and C. C. Landry, *J. Phys. Chem. B.* **2006**, *110*, 15261.

33. "Synthesis, Structure, and Reactivity of a New Ti-Containing Mesoporous/Microporous Material," S. M. Solberg, D. Kumar, and C. C. Landry, *J. Phys. Chem. B* **2005**, *109*, 24331.

32. "V-Doped APMS: Synthesis, Characterization, and Catalytic Studies on Oxidation of 2-Chloroethyl Ethylsulfide," C. R. Ringenbach, S. R. Livingston, D. Kumar, and C. C. Landry, *Chem. Mater.* **2005**, *17*, 5880.

31. "Complete Reduction of 2-Chloroethyl ethylsulfide by Hydrodesulfurization Using Mo-doped Mesoporous Substrates," A. C. Sorensen and C. C. Landry, *Catal. Lett.* **2005**, *100*, 135.

30. "Mo-Doped Mesoporous Silica for Thiophene HDS: Comparison of Materials and Methods," A. C. Sorensen, B. L. Fuller, A. G. Eklund, and C. C. Landry, *Chem. Mater.* **2004**, *16*, 2157.

29. "Size Exclusion Chromatography (SEC) of Low Molecular Weight Polymers Using Mesoporous Silica," T. W. Nassivera, A. G. Eklund and C. C. Landry, *J. Chromatogr. A.* **2002**, *973*, 97.

28. "Synthesis, Characterization, and Catalytic Properties of MMM-1," R. H. P. R. Poladi and C. C. Landry, *J. Solid State Chem.* **2002**, *167*, 363. ***cover article***

27. "Oxidation of Octane and Cyclohexane Using a New Porous Substrate, Ti-MMM-1," R. H. P. R. Poladi and C. C. Landry, *Microporous Mesoporous Mater.* **2002**, *52*, 11.

26. "Molecularly Ordered Frameworks in Layered Silicate/Surfactant Mesophases," S. C. Christiansen, D. Zhao, M. T. Janicke, C. C. Landry, G. D. Stucky, and B. F. Chmelka, *J. Am. Chem. Soc.* **2001**, *123*, 4519.

25. "Phase Transitions in Mesostructured Silica/Surfactant Composites. Surfactant Packing and the Role of Charge Density Matching," S. H. Tolbert, C. C. Landry, G. D. Stucky, B. F. Chmelka, P. Norby, J. C. Hanson, and A. Monnier, *Chem. Mater.* **2001**, *13*, 2247.

24. "Phase Transitions in Mesostructured Silica/Surfactant Composites. Mechanisms for Change and Applications to Materials Synthesis," C. C. Landry, S. H. Tolbert, K. W. Gallis, A. Monnier, G. D. Stucky, P. Norby, and J. C. Hanson, *Chem. Mater.* **2001**, *13*, 1600. ***cover article***

23. "Rapid Calcination of Nanostructured Silicate Composites by Microwave Irradiation," K. W. Gallis and C. C. Landry, *Adv. Mater.* **2001**, *13*, 23. ***cover article***

22. "Using Mesoporous Silica in Liquid Chromatography," K. W. Gallis, A. G. Eklund, S. T. Jull, J. T. Araujo, J. G. Moore, and C. C. Landry, *Stud. Surf. Sci. Catal.* **2000**, *129*, 747.

21. "The Use of Mesoporous Silica in Liquid Chromatography," K. W. Gallis, J. T. Araujo, J. G. Moore, and C. C. Landry, *Adv. Mater.* **1999**, *11*, 1452.

20. "Analysis of 2-ferrocenylethanol by NMR, Cyclic Voltammetry, and X-ray Crystallography," C. Nataro, W. M. Cleaver, C. C. Landry, and C. W. Allen, *Polyhedron* **1999**, *18*, 1471.

19. "Low Silica MCM-41 Composites and Mesoporous Solids," M. T. Janicke, C. C. Landry, S. C. Christiansen, S. Birtalan, G. D. Stucky, and B. F. Chmelka, *Chem. Mater.* **1999**, *11*, 1342.

18. "Characterization of the Acidity and Catalytic Activity of MCM-48 and Amorphous Silica-alumina Materials," J. Carrazza, F. González, R. Adrián, D. Djaouadi, J. G. Moore, D. Y . Shahriari, C. C. Landry, and J. Lujano, *Proc. 12th Int. Zeol. Conf.,* Eds. M. M. J. Treacy, B. K. Marcus, M. E. Bisher, and J. B. Higgins, MRS Publishing, Pittsburgh, **1999**, v. 2, p. 801.

17. "Synthesis and Structural Features of the Gallium Phosphonate Cluster $^{t}Bu_7Ga_3P_3O_8(OH)$," C. C. Landry, W. M. Cleaver, I. Guzei, and A. L. Rheingold, *Organometallics* **1998**, *17*, 5209.

16. "Aluminum Incorporation in MCM-41 Mesoporous Molecular Sieves Studied by Multidimensional Solid-State NMR," M. T. Janicke, C. C. Landry, D. Kumar, G. D. Stucky, and B. F. Chmelka, *J. Am. Chem. Soc.* **1998**, *120*, 6940.

15. "Synthesis of MCM-48 by a Phase Transformation Process," K. W. Gallis and C. C. Landry, *Chem. Mater.* **1997**, *9*, 2035.

14. "Gallium and Indium Compounds of Sulfur Donor Ligands: Pyridine-2-thiolates and Diphenylthiophosphinates," C. C. Landry, A. Hynes, I. Haiduc, C. Silvestru, and A. R. Barron, *Polyhedron* **1996**, *15*, 391.

13. "Galloxane and Alumoxane Hydroxides: $Ga_{12}(^{t}Bu)_{12}(\mu_3\text{-}O)_8(\mu\text{-}O)_2(\mu\text{-}OH)_4$ and $Al_6(^{t}Bu)_6(\mu_3\text{-}O)_4(\mu\text{-}OH)_4$," C. C. Landry, C. J. Harlan, S. G. Bott, and A. R. Barron, *Angew. Chem*. **1995**, *34*, 1201.

12. "MOCVD of Alumina-Silica Oxidation Resistant Coatings on Carbon Fibers," C. C. Landry and A. R. Barron, *Carbon* **1995**, *33*, 381.

11. "The Synthesis of Chalcopyrite Semiconductors and Their Solid Solutions by Microwave Irradiation," C. C. Landry, J. Lockwood, and A. R. Barron, *Chem. Mater*., **1995**, *7*, 699.

10. "From Minerals to Materials: Synthesis of Alumoxanes from the Reaction of Boehmite with Carboxylic Acids," C. C. Landry, N. Pappé, M. R. Mason, A. W. Apblett, A. N. MacInnes, A. N. Tyler, and A. R. Barron, *J. Mater. Chem*. **1995** *5*, 331.

9. "Reaction of Boehmite with Carboxylic Acids: a New Synthetic Route to Alumoxanes," C. C. Landry, N. Pappé, M. R. Mason, A. W. Apblett, and A. R. Barron, in *Inorganic and Organometallic Polymers II: Advanced Materials and Intermediates*, ed. P. Wisian-Nelson, ACS Publications, Washington, D. C.: **1995**, 216.

8. "The Synthesis of Polycrystalline Semiconductors by Microwave Irradiation," C. C. Landry and A. R. Barron, *Mat. Res. Soc., Symp. Proc.* **1994**, *327*, 89.

7. "Room Temperature Synthesis of $CuInQ_2$ (Q = S or Se) in Non-Aqueous Solution Using an Organoindium Reagent," A. F. Hepp, M. T. Andras, C. C. Landry, and A. R. Barron, *Mat. Res. Soc., Symp. Proc.* **1994**, *327*, 83.

6. "The Molecular Structure of Tris-(trimethylaluminum)(diglyme)," J. T. Leman, C. C. Landry, and A. R. Barron, *Main Group Metal Chem.*, **1993**, *16*, 193.

5. "Synthesis of Polycrystalline Chalcopyrite Semiconductors by Microwave Irradiation," C. C. Landry and A. R. Barron, *Science* **1993**, *260*, 1653.

4. "Siloxy-Substituted Alumoxanes: Synthesis from Polydialkylsiloxanes and Trimethylaluminum, and Application as Aluminosilicate Precursors," C. C. Landry, J. A. Davis, A. W. Apblett, and A. R. Barron, *J. Mater. Chem.* **1993**, *3*, 597.

3. "From Minerals to Materials: A Facile Synthetic Route to Preceramic Polymers for Aluminum Oxide," A. W. Apblett, C. C. Landry, M. R. Mason, and A. R. Barron, *Mat. Res. Soc., Symp. Proc.* **1992**, *249*, 75.

2. "The Preparation of $(Al_2O_3)_x(SiO_2)_y$ Thin Films Using $[Al(OSiEt_3)_3]_2$ as a Single-Source Precursor," C. C. Landry, L. K. Cheatham, A. N. MacInnes, and A. R. Barron, *Adv. Mater. Optics Electron.* **1992**, *1*, 3.

1. "Purification and Characterization of an Iron-Binding Protein from the Blue Crab (*Callinectes sapidus*)," C. C. Landry and R. W. Topham, *Comp. Biochem. Physiol.* **1990**, *97B*, 831.

Patents:

3. "System and Method of Delivering a Desired Material to a Cell," K. Cheng and C. C. Landry, U.S. Patent application number 20070281036A1.

2. "Mesoporous Silicate Spheres and Method of Making Same," T. W. Nassivera and C. C. Landry, U.S. Patent application number 2006118490.

1. "Mesoporous Silicates and Method of Making Same," K. W. Gallis and C. C. Landry, U.S. Patent 6,334,988 awarded 01/03/02.

Graduate and Post-doctoral Advisors:

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Students and Post-doctoral Associates Advised:

Post-doctoral Associates (7 total):

Dr. William Cleaver, University of Vermont; Dr. Andrew Eklund, Alfred University; Dr. Kheireddine El-Boubbou, University of Vermont; Dr. Rani Jha, Georgia Tech; Dr. Dharmesh Kumar, Shell, Inc.; Dr. Raja Poladi, DuPont Inc.; Dr. Jan-Henrik Smått, Åbo Akademi University, Finland; Dr. Jeremy Steinbacher, University of Vermont.

Graduate Students Sponsored (10 total):

Dr. Karl Gallis, *Synthesis, Characterization, and Applications of Mesoporous Materials*; current location: J. M. Huber, Inc.

Dr. Joseph Moore, *Studies of Mesoporous Silica: Heteroatom Incorporation, Catalysis, and Confocal Microscopy*; current location: Bucknell University.

Dr. Terry Nassivera, *Synthesis and Characterization of Nanoporous Materials and Use of Mesoporous Silicas and Silicates in Liquid Chromatographic Applications*; current location: J. M. Huber, Inc.

Dr. Adam Sorensen, *Synthesis and Characterization of Molybdenum-doped Mesoporous Silicates and Their Use in the Hydrodesulfurization of Mustard Gas Analogues*; current location: Mylan Laboratories, Inc.

Dr. Kai Cheng, *Design and Development of Functionalized Nanoporous Silica Spheres for Biomedical Applications*; current location: Brown University.

Dr. Sean Solberg, *Synthesis and Characterization of Mesoporous Materials and Their Application in Catalysis and Adsorption*; current location: Chevron, Inc.

Dr. Stephanie Livingston, *Synthesis, Characterization, and Application of Catalysts Supported on Mesoporous Silica for the Degradation of Chemical Warfare Agent Analogues*; current location: Roanoke College.

Vikki Carhart, Alden Clemments, Daniel DePuccio, Alexandra Duncan, Brendon Miller, Neil Patel (currently enrolled), all University of Vermont.

Undergraduate Students Sponsored (27 total):

Jennifer Epperlein, 1997 – 1998	D.O., New York College of Osteopathic Medicine
Dean Shahriari, 1997 – 1998	Ph.D., Northwestern University; J. D., Georgia State University
Jim Araujo, 1997	M.S., MIT
Kevin Schneider, 1997	Ph.D., University of Michigan
Ed Gerber, 1998	Ph.D., Princeton University
Mark Metzke, 1998 – 1999	Ph.D., University of California at Irvine
Matt Hirschey, 1999 – 2001	Ph.D., University of California at Santa Barbara
Paul Byrne, 1999 – 2001	Ph.D., MIT
Sara Jull, 1999	B.S., Oberlin College
Chris Ringenbach, 2000 – 2004	B.S., University of Vermont (current: Central Intelligence Agency)
Noah Durrell, 2000	B.S., University of Vermont
Stephanie Kasper, 2001	O.D., New England College of Optometry
Bethany Fuller, 2002 – 2003	B.S., University of Vermont (current: Vermont Teddy Bear)
Emily King, 2003	B.S., University of Vermont (current: Equity Residential)
Nick Frisch, 2004	B.S., University of Vermont (current: Tufts Univ. School of Medicine)
Jeffrey Cogswell, 2005 – 2007	B.S., University of Vermont (current: SUNY Buffalo)
Stephanie Jochum, 2006	B.S., University of Vermont

Julie Kwok, 2008 – 2009	B.S., University of Vermont
Jon Tinkham, 2008 – 2009	B.S., University of Vermont (current: UMass Amherst)
Erich Russell, 2008 – 2009	B.S., University of Vermont
Evangelia Zgonis, 2008	
Kathleen McCarthy, 2008	
Jake Brutman, 2008	
Doug Fox, 2008 –	
Marissa Wells, 2009 –	
Veronica Foelber, 2009	
Susan Leggett, 2010	